

RIVERWAYS

News Notes

March 15, 2003

Dear River Advocates,

The **Massachusetts Riverways Programs** (<http://www.massriverways.org>) are premised on partnerships —on working with you. Since 1987, your work has influenced us to focus our programs to better serve you, your communities and your rivers.

NEW RIVERWAYS NEWS NOTES

One of our important links to you has been through our **Newsletter** and the **June Rivers Month Calendar**. Because of the downturn in the economy, we are not currently able to fund the printing and mailing of the Newsletter or Calendar. Last fall we posted our Newsletter on-line on our web page at <http://www.state.ma.us/dfwele/river/pdf/rivfall02NL.pdf>. We also started an announcement listserv to alert our subscribers and sent e-mail notices to those whose addresses we have in our database. We will use this list to send out a notice and an electronic version of *Riverways News Notes* and the **June Rivers Month Calendar**. I hope you take the opportunity to sign up for our listserv if you have not done so already (send a blank email to MassRiverways-subscribe@topica.com).

This spring, we have decided to restructure our newsletter into a more bite-sized (or should I say “byte-sized”?) *Riverways News Notes*. We hope to be able to reach more of you on a more timely basis through this format. Riverways will now send out the info that formerly appeared in our Newsletter in short, timely e-mail news notes. Each “issue” of *Riverways News Notes* will contain an update of Riverways happenings, a few *Resources and Grants* and a lead article. *Riverways News Notes* can be read as an e-mail, as an attachment or on our web page at <http://www.state.ma.us/dfwele/river/rivnews.htm>.

The lead article for this inaugural issue of *Riverways News Notes* describes the **River Restore Program’s** work on the Neponset River. We welcome your comments on this new format and on how to best serve you and your rivers.

During the spring of 2003, Riverways will continue to facilitate the protection of the resources of the Commonwealth by providing technical assistance to communities, watershed associations, urban groups, and Stream Teams in order to protect and restore

- water quality
- water quantity (instream flow)
- green space

- revitalized urban waterfronts
- anadromous fish passage
- river ecosystems providing habitat for fish and wildlife
- access to provide river-friendly recreational opportunities

The Riverways Programs, comprised of several field-based programs, seeks and finds ways to advance river protection across the state. By working directly with citizens, we provide training and technical assistance that lead to more sustainable communities. By emphasizing resources that require protection, we help focus needed development away from precious water resources into appropriate areas, while at the same time working to revitalize previously developed riverfronts. As Director of the Riverways Programs, I must express my profound gratitude for our dedicated, hard-working staff. Highly motivated, enthusiastic and greatly skilled, Riverways staff members work efficiently in each of our 1-2 person programs on behalf of the Commonwealth's rivers. To see a summary of our work last year, see *Riverways 2002 Annual Report and Executive Summary* on our web page at <http://www.state.ma.us/dfwele/river/PDF/ExecSum2002.pdf>.

According to your e-mails, we know you particularly look forward to the *Resources and Grants* section of our newsletter. We will include some information in each of our *Riverways News Notes*, and we will have a *Resources and Grants* section on our web page. For the first issue, a separate and full-length *Resources and Grants* section will be sent out as a separate e-mail.

As always, thanks to all of you for your good work.

See you on the Rivers! Joan Kimball

June Rivers Month Calendar: Announcement and Call for Events

Each spring the Riverways Programs compiles a list of events that are happening on and around the rivers of Massachusetts in celebration of June as Rivers Month. We do this to celebrate rivers and to enable you to sample dozens of river events.

This year the June Rivers Month Calendar will be placed on our web page in early May. This year's calendar will cover the time period of May 10th through July 6th. We plan to send out weekly emails describing the events of each upcoming week. Please sign up for our list-serve to take advantage of these weekly emails.

We need to know about your events! Send an e-mail to Eileen.goldberg@state.ma.us or download the June Rivers Month form from our web page (available very soon at <http://www.massriverways.org>). Please include:

Date (day), River, event title, sponsor, location, time, description, contact person and telephone number.

Let us know if you require reservations in advance for the event. Please include all relevant information.

And now for the lead article in this inaugural issue of *Riverways News Notes*:

Visualizing the Alternatives for Neponset River Fish Passage and Habitat Restoration

“What will the river look like?”

This is one of the first questions asked by members of a river community when they are considering the best way to provide for fish passage at a dam while still respecting current community interests and aesthetic, historical, and recreational values. From an ecological perspective, the benefits of fish passage alternatives (including engineered fishways, “nature-like” fishways such as “rock ramps” and bypass channels, partial dam removal, and full dam removal) vary widely in terms of their efficiency at allowing fish to pass up-and down-stream and the extent to which they restore natural river functions. However, each alternative also can affect a wide range of community interests and social values which influence perceptions for certain alternatives or options.

These community interests and social values are playing a critical role in the decision-making process regarding fish passage at two dams along the Neponset River. Anadromous, or migratory, fish species such as Herring and Shad were once abundant in the Neponset River and formed a critical link in the food supply for the Native Americans and early colonists, as well as the river’s ecosystem itself. Populations dwindled and disappeared following the construction of mill dams, which obstructed upstream passage. Of course, these dams and the associated mills were an integral part of the history and success of river communities like Dorchester, Milton, Mattapan, and Hyde Park and became part of the cultural identity of many of the communities living along the river. Indeed, Walter Baker Dam, while not original to the site – it was rebuilt in the 1960’s, is part of the Dorchester-Milton Lower Mills Industrial Complex which is on the State and National Registries of Historic Places.

Background

In 1995, as part of the Neponset River Pilot Project for the Massachusetts Watershed Initiative, the Massachusetts Division of Marine Fisheries (DMF) surveyed the river’s mainstem to evaluate spawning habitat for Blueback Herring and American Shad. Based on the quality and quantity of habitat observed during this survey, the DMF recommended restoring the fishery and began stocking herring and shad on a yearly basis. The challenge then became to find the best way to get fish past the Walter Baker and Tileston and Hollingsworth Dams, as they are the first two barriers on the Neponset River and block access to the approximately 17 miles of free-flowing river habitat.

In 1998, in order to obtain the technical information necessary to evaluate options for upstream fish passage for herring and shad, the Massachusetts Executive Office of Environmental Affairs (EOEA) requested that an ecological restoration study be conducted by the U.S. Army Corps of Engineers (Corps)

pursuant to Section 206 of the Water Resources Development Act. This is a cost-share program whereby the Corps conducts a feasibility study and environmental assessment and then will pay for 65% of the costs of implementing the selected alternative. The study is exploring the alternatives of fishways, dam removal, dam breaching, and sluiceway modification. DFWELE agreed to serve as the non-federal sponsor of the study, with Riverways Programs staff acting as liaison to the Corps and EOE agencies.

As the Corps study moved forward, key social and historic issues were identified and a major question that came up was, "What will the river look like?" An effective technique for involving community interests is through the development of "conceptual renderings" of the various alternatives under consideration. It has been the experience of Riverways and others that the "rendering" process and products encourage the reevaluation of preconceived beliefs and increase the opportunity for parties to engage in problem solving.

The Visualization Process

Our first step was to form a diverse and experienced review committee to help us select the best consultant for the conceptual rendering work. Fortunately, we had the involvement of the Metropolitan District Commission (MDC), Department of Environmental Management (DEM), Boston Natural Areas Network (BNAN), Neponset River Watershed Association (NepRWA), and American Rivers who all brought a rich supply of community knowledge and historical, ecological and technical expertise to the committee.

The conceptual renderings process necessitates an approach which integrates the technical skills of an engineer familiar with river restoration with the artistic visions and skills of a landscape architect. It is important that the conceptual renderings reflect the studies done thus far and accurately reflect what is technically possible. The renderings also present an opportunity to incorporate community values and future goals and visions for the river. Keeping all of this in mind, the committee selected Milone & MacBroom, Inc. (MMI), that brought many years of experience dealing with dams, river restoration, and fish passage alternatives (removal, breach, fish-ladders, etc.).

Community Meetings

We had the first of two community meetings on January 22nd, 2003 with approximately 35 people attending. The objectives for the first meeting were to provide background and updates to the overall restoration project and to gather input from the community before the conceptual renderings were started. We wanted to know,

- 1) How to make the conceptual renderings clear and informative.
- 2) How, where, and when the river is used in order to determine the characteristics of the renderings.

To elicit community comments, MMI first presented their approach to the rendering process and showed some examples from past work they have done. They use two techniques for visualizing the potential changes at the dams; 1) hand-drawn illustrations and 2) digital photo simulations. These complement one another because the photo simulations have the advantage of 'looking' realistic because the base photo shows existing conditions and the software technology allows for quite realistic manipulations... you will

never believe a photo again! However, with the photos you are limited to those perspectives where a photo is available to manipulate. On the other hand, the hand-drawn illustrations allow the landscape architect to add features and take an artistic license to show perspectives that would be difficult using the photos.

After MMI presented how they develop these conceptual renderings using illustrations and photos, we broke up into three smaller discussion groups. Armed with maps and discussion questions, facilitators for each group recorded ideas and input on what to include in the rendering process.

- How might these conceptual renderings make the alternatives clearer and address your concerns?
- What kinds of river-based activities are you involved with between Lower Mills and Paul's Bridge? Where? What season of the year? (e.g. paddling, walking, birding, biking, etc) (see the map on the back)
- What do you find attractive and unattractive about or along the Neponset River?
- How have your perceptions and/or uses of the river changed over the past 5 years?

We were able to incorporate many of the community suggestions into the renderings. For example, a consistent theme was that the alternatives should show people using the river and access to the river. In the Baker Dam alternatives, renderings show the potential education aspects of a fishway and dam removal.

The second meeting on February 26th, 2003 was met with great anticipation and the attendance was close to 60 participants. At this meeting we presented the 'final' conceptual renderings that MMI had put together and discussed the community reactions to them and evaluated the process.

- Based on what you see in the renderings – which alternative appeals to you? Why?

Fish ladder - Removal - Partial removal – Baker – T & H

- What factors did you consider when you made this decision?

Ecological Factors

Fish
River Habitat Restoration
Wetlands
Water and Sediment Quality
Flooding

Community Identity

Historic and Archeological Resources
Recreational
Aesthetic

- Is there anything about the alternatives that you cannot live with?
- What was useful / not useful about this process and conceptual renderings?

We had a lot of positive feedback from the participants on the process we used to create the conceptual renderings. Many people did say the illustrations and photographic simulations were very helpful in visualizing the alternatives. The process we used also was a catalyst to get people thinking about the future of the river and how the restoration project could bring people to the river and use it in positive ways.

What's Next?

As part of the ongoing outreach effort in the Neponset River, Riverways awarded the Neponset River Watershed Association a Small Grant to continue to hold community meetings to give people an understanding of the background to the project and to continue to solicit ideas and concerns as the process moves forward.

Through this process we were also able to create a website for the project. This website has been up and running since December 2002 and has proved informative for the community. The website will soon have all the renderings and photographs available for people to look at in greater detail and the opportunity to continue to give us feedback and comments. Please visit the webpage at: http://www.state.ma.us/dfwele/RIVER/NeponsetFish/Neponset_toc.htm.

Arriving at your e-mail boxes soon: the next edition of Riverways News Notes, featuring a special, full-length Resources and Grants section

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